

Title (en)  
EXHAUST GAS PURIFYING CATALYST

Title (de)  
ABGASREINIGUNGSKATALYSATOR

Title (fr)  
CATALYSEUR DE PURIFICATION DE GAZ D'ÉCHAPPEMENT

Publication  
**EP 3034167 A4 20170503 (EN)**

Application  
**EP 14869813 A 20141204**

Priority  
• JP 2013254480 A 20131209  
• JP 2014082147 W 20141204

Abstract (en)  
[origin: EP3034167A1] The exhaust gas-purifying catalyst 10 of the invention includes a noble metal 20, and crystallites 30 that form CZ composite metal particles which serve as a carrier supporting the noble metal and contain at least zirconium (Zr) and cerium (Ce). The CZ composite oxide particles (crystallites) 30 further contain crystal growth-suppressing fine particles 40 which are fine metal particles comprising primarily a metallic element M that melts at 1,500°C or above and which suppress crystal growth by the CZ composite oxide particles. The content of the metallic element M included in the CZ composite oxide particles 30, expressed in terms of the oxide thereof, is 0.5 mol % or less of the total oxide.

IPC 8 full level  
**B01J 23/652** (2006.01); **B01D 53/94** (2006.01); **B01J 23/00** (2006.01); **B01J 23/10** (2006.01); **B01J 23/63** (2006.01); **B01J 23/648** (2006.01); **B01J 35/00** (2006.01); **B01J 37/03** (2006.01); **F01N 3/10** (2006.01); **B01J 37/12** (2006.01)

CPC (source: EP US)  
**B01D 53/945** (2013.01 - EP US); **B01J 23/002** (2013.01 - EP US); **B01J 23/10** (2013.01 - EP US); **B01J 23/6484** (2013.01 - EP US); **B01J 23/6486** (2013.01 - EP US); **B01J 23/6525** (2013.01 - EP US); **B01J 23/6527** (2013.01 - EP US); **B01J 35/30** (2024.01 - US); **B01J 35/391** (2024.01 - US); **B01J 37/03** (2013.01 - EP US); **B01D 2255/1021** (2013.01 - EP US); **B01D 2255/1023** (2013.01 - EP US); **B01D 2255/1025** (2013.01 - EP US); **B01D 2255/2065** (2013.01 - EP US); **B01D 2255/207** (2013.01 - EP US); **B01D 2255/20715** (2013.01 - EP US); **B01D 2255/20769** (2013.01 - EP US); **B01D 2255/20776** (2013.01 - EP US); **B01D 2255/2092** (2013.01 - EP US); **B01D 2255/407** (2013.01 - EP US); **B01J 35/34** (2024.01 - EP); **B01J 35/77** (2024.01 - EP); **B01J 37/12** (2013.01 - EP US); **B01J 2235/00** (2024.01 - EP); **B01J 2235/30** (2024.01 - EP); **B01J 2523/00** (2013.01 - EP US); **Y02T 10/12** (2013.01 - EP US)

C-Set (source: EP US)  
1. **B01J 2523/00 + B01J 2523/36 + B01J 2523/3706 + B01J 2523/3712 + B01J 2523/48 + B01J 2523/69 + B01J 2523/828**  
2. **B01J 2523/00 + B01J 2523/36 + B01J 2523/3706 + B01J 2523/3712 + B01J 2523/48 + B01J 2523/68 + B01J 2523/828**  
3. **B01J 2523/00 + B01J 2523/36 + B01J 2523/3706 + B01J 2523/3712 + B01J 2523/48 + B01J 2523/56 + B01J 2523/828**  
4. **B01J 2523/00 + B01J 2523/3706 + B01J 2523/3712 + B01J 2523/3725 + B01J 2523/48 + B01J 2523/56 + B01J 2523/822**  
5. **B01J 2523/00 + B01J 2523/36 + B01J 2523/3706 + B01J 2523/3712 + B01J 2523/3725 + B01J 2523/48 + B01J 2523/57 + B01J 2523/824**  
6. **B01J 2523/00 + B01J 2523/36 + B01J 2523/3706 + B01J 2523/3712 + B01J 2523/48 + B01J 2523/822 + B01J 2523/828**  
7. **B01J 2523/00 + B01J 2523/36 + B01J 2523/3706 + B01J 2523/3712 + B01J 2523/48 + B01J 2523/824 + B01J 2523/828**

Citation (search report)  
• [X] US 6468941 B1 20021022 - BORTUN ANATOLY I [US], et al  
• [XI] EP 2457657 A1 20120530 - CATALER CORP [JP]  
• [X] US 2012027654 A1 20120202 - MIKITA KOSUKE [JP], et al  
• See also references of WO 2015087780A1

Cited by  
EP4159309A1; WO2023052741A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3034167 A1 20160622; EP 3034167 A4 20170503**; CN 105813736 A 20160727; CN 105813736 B 20191227; JP 6514112 B2 20190515; JP WO2015087780 A1 20170316; US 2016288052 A1 20161006; US 9724644 B2 20170808; WO 2015087780 A1 20150618

DOCDB simple family (application)  
**EP 14869813 A 20141204**; CN 201480066245 A 20141204; JP 2014082147 W 20141204; JP 2015552413 A 20141204; US 201415037070 A 20141204